

## COMMENTS

The enclosed is responsive to the Examiner's Final Office Action mailed on April 6, 2004. At the time the Examiner mailed the Final Office Action claims 1 – 18, 22 – 35, 37 – 48, 50 – 85, 87 – 138 and 140 were pending. By way of the present response the Applicant has: 1) neither added nor canceled any claims; and, 2) amended claims 1, 3, 8, 9, 10, 14, 15, 16, 17, 22, 23, 24, 25, 27, 28, 31, 32, 33, 40, 41, 42, 43, 46, 47 and 53. As such claims 1 – 18, 22 – 35, 37 – 48, 50 – 85, 87 – 138 and 140 remain pending. The Applicant respectfully requests reconsideration of the present application and the allowance of claims 1 – 18, 22 – 35, 37 – 48, 50 – 85, 87 – 138 and 140.

### **Rejections Under 35 USC §112, paragraph 1**

The Examiner has rejected each of independent claims 1, 25, 41, 54, 69, 83, 90, 115 and 130 under 35 USC §112, paragraph 1 as failing to comply with the written description requirement. According to the Examiner

“the claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the invention”

See, Final Office Action mailed 4/6/04, page 2.

According to the Examiner, the Applicant's use of the term "software routine" and "software" were each to be regarded as new matter; and, moreover, the Applicant's invention was to be limited to the broadcasting of "firmware algorithms". See, Final Office Action mailed 4/6/04, pages 2-3 ("[t]he new matter such as 'a plurality of algorithms embodied as software routines' . . . 'continuously broadcasting software routines' which are not found in the original disclosure...[a]pplicant is directed to pages 10 – 23 wherein a continuous broadcast of a number of firmware algorithms from a master DSP engine").

The Examiner's rejection is improper. The Applicant's specification not only uses the term "software" and "software routine" but clearly uses the terms "software" and "software routine" interchangeably with the term "firmware". Moreover, interchangeability of the term "firmware" and "software" is consistent, at least in the context of the present application, to one of ordinary skill in the art.

Firstly, the Examiner's attention is drawn to the following statement made between pages 10 and 23 of the Applicant's own specification (the same portion of the Applicant's specification to which the Examiner directed the Applicant's attention):

"[a]n interrupt service routine associated with a particular interrupt reads the next word received into the TDM port, the first word of the block, and calls the appropriate software routine" page 21, lines 7-9

Secondly, it appears that the Examiner attempted to limit the portion of the Applicant's specification that was drawn to the Applicant's attention to page 10 and beyond because the Applicant's specification is replete with references to the term "software". The following statement, which was made on page 9 of the Applicant's specification and which the Examiner apparently attempted to prevent the Applicant from recognizing, is clearly made in context to the Applicant's invention and not background material:

"... the continuous firmware delivery system allows service DSP engines to dynamically reload with the appropriate algorithm or firmware overlay or subsystem software to service a random incident telephony call types" page 9, lines 16-19

The Applicant's background discussion is also contains numerous references to the term "software" ("... different algorithms which are resident as different software images. . ." page 4, lines 2-3; "... problems inherent in dynamically loading and running different software images . . ." page 4, lines 4-5; "... large enough to hold all the possible software modules . . ." page 4, lines 8-9; "[t]he DSP processor identifies the received data type and makes a request over to a host processor for the necessary processing software routine" page 4, lines 14-15; "[t]he host processor responds by downloading the requested software routine to the DSP processor over the host bus" page 4, line 16-17; "[p]eak saturating bandwidths occur when many software download requests are responded to simultaneously" page 4, line, 20-21; "[t]he DSP processor identifies

the received data type and accesses the shared memory system of its grouping for the necessary processing software routine" page 5, lines 7-9; ". . . the number of processors sharing a software library would typically be required to be kept small for performance reasons" page 5, lines 12-13; "[t]he DSP processor identifies the received data type and processes the data using a software routine stored in its associated memory" page 5, lines 22-23).

Here, the background clearly describes inefficiencies associated with downloading executable program code to DSPs within communication systems. The term "software" is routinely used to described the executable program code. Because the Applicant's invention is clearly drawn to solving this problem by "continuously broadcasting" to the DSPs the executable program code, its is readily apparent that the Applicant's heavy use of the term "software" in the background may be used interchangeably with the term "firmware" or "firmware algorithm" used elsewhere in the Applicant's specification.

Lastly, the Applicant's replacement of the term "firmware" in the claims with the terms "software" or "software routine" were meant to remove any lack of clarity or imprecision that might result from the term "firmware" having duplicitous meaning. The Applicant has provided herewith a 1.132 affidavit that probably provides the purest definition of the term "firmware". Note that the term "firmware" can refer to non volatile memory devices or "software". Because it is obvious to one of ordinary skill that the Applicant's invention does not involve the

broadcasting of an actual memory chip but rather involves the broadcasting of program code that can be stored in a memory chip, the Applicant has chosen the term “software” or “software routine” so as to explicitly refer to executable program code.

The Applicant has furthermore amended independent claims 1, 24, 41 and their dependent claims to refer to “executable instructions” to provide an alternative term for the Examiner to consider. As far as the Applicant is concerned, the terms “program code”, “executable program code”, “executable instructions”, “software”, “software routine”, “software image” and the like all have essentially the same meaning when taken in context with the Applicant’s invention.

Thus, in light of the above arguments, the Applicant submits that the Examiner’s rejection of independent claims 1, 25, 41, 54, 69, 83, 90, 115 and 130 under 35 USC §112, paragraph 1 as failing to comply with the written description requirement is improper. The same may be said for each of the Examiner’s rejections directed to any dependent claims on the same grounds.

## **Rejections Under 35 USC §102(e)**

The Examiner has rejected each of independent claims 1, 25, 41, 54, 69, 83, 90, 115 under 35 USC 102(e) as being anticipated by U.S. Patent No. 6,052,154 (hereinafter, "Macrae"). Apparently, through the Examiner's above rejection under 35 USC 112, para. 1, the Examiner has attempted to force a reading of "program" into the Applicant's claims where the term "software" or "software routine" was found. The Examiner has apparently made such a reading in order to support the repeated use of Macrae even though the Applicant's claims do not recite the word "program". Because the Examiner effectively applied art old art against claims that no longer use the word "program", the Examiner's rejection on its face is improper. Nevertheless the Applicant essentially repeats the earlier filed argument against Macrae.

"To anticipate a claim, the reference must teach every element of the claim" MPEP 2131. The Applicant respectfully submits that Macrae fails to disclose each and every element of the Applicant's independent claims at least because each of the Applicant's independent claims recite the broadcasting of software routines; and, Macrae fails to disclose the broadcasting of software routines.

It should be readily apparent that each of the Applicant's independent claims recite the broadcasting of software routines (See, claim 1 "continuously broadcasting a plurality of algorithms embodied as executable instructions toward a plurality of DSPs"; claim 25 "a plurality of algorithms embodied as

executable instructions are continuously broadcasted”; claim 41 “a plurality of algorithms embodied as executable instructions are continuously broadcasted”; claim 54 “a plurality of continuously broadcasted software routines for a plurality of algorithms”; claim 69 “broadcasting a plurality of software routines that the DSP is capable of executing”; claim 83 “continuously broadcasting a plurality of software routines representative of a plurality of algorithms that can be executed by a DSP”; claim 90 “broadcasting a plurality of software routines that can be executed by the DSP”; claim 115 “continuously broadcasts a plurality of software routines”; claim 130 “from a plurality of continuously broadcasted software routines”).

Macrae simply fails to disclose the broadcasting of software routines. Macrae only discloses the broadcasting of “television schedule and episode, news, sports and other information”. Moreover, Macrae’s use of the word “programs” is clearly meant to mean a show or performance (e.g., “a television program”). As such, the programs of Macrae are clearly not meant to be software programs but instead to mean television shows and the like; and, as a consequence, Macrae fails to disclose the broadcasting of software routines.

Therefore each of independent claims 1, 25, 41, 54, 69, 83, 90, 115 are allowable over the Macrae reference; and, therefore, the Applicant respectfully requests the allowance of all claims.

The Applicant’s silence to the dependent claims should not be construed as an admission by the Applicant that the Applicant is complicit with the Examiner’s rejection of these claims. Because the Applicant has demonstrated

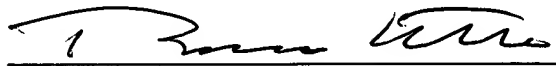
the patentability of the independent claims, the Applicant need not substantively address the theories of rejection applied to the dependent claims.

If there are any additional charges, please charge Deposit Account No. 02-2666.

Respectfully submitted,

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